

LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Previously Presented) A substrate processing apparatus operable to supply a fluid to a rotated substrate, the substrate processing apparatus operable to perform prescribed processing and comprising:

a substrate holding/rotating element configured and operable to hold and to rotate said substrate; and

an atmosphere blocking plate configured to be substantially the same in planar shape and size as said substrate holding/rotating element, being rotatably driven and being arranged oppositely and proximately to at least one entire major surface of said substrate when said substrate is held by said substrate holding/rotating element, and formed with a processing solution discharge port and a single inner gas discharge port operable to discharge a processing solution and gas to said surface of said substrate respectively,

wherein said single inner gas discharge port is arranged eccentrically to a center of said substrate held by said substrate holding/rotating element, and

an outer gas discharge port is formed on said atmosphere blocking plate and is positioned outside said single inner gas discharge port so as to continuously and annularly enclose said single inner gas discharge port in plan view, said outer gas discharge port operable to discharge the gas to said surface of said substrate held by said substrate holding/rotating element.

2. (Canceled)

3. (Previously Presented) The substrate processing apparatus according to claim 1, wherein said outer gas discharge port is so formed on said atmosphere blocking plate such that an arrival position of said gas discharged from said outer gas discharge port is in the vicinity of said intermediate portion between the center and the outer peripheral edge of said surface of said substrate held by said substrate holding/rotating element.

4. (Previously Presented) The substrate processing apparatus according to claim 3, wherein said outer gas discharge port is operable to start discharging said gas in a delay from discharge of said gas from said single inner gas discharge port.

5. (Previously Presented) The substrate processing apparatus according to claim 4, wherein the flow rate of said gas discharged from said outer gas discharge port is larger than the flow rate of said gas discharged from said single inner gas discharge port.

6. (Previously Presented) The substrate processing apparatus according to claim 5, wherein said single inner gas discharge port and said outer gas discharge port are arranged inside a support cylinder supporting said atmosphere blocking plate in plan view.

7. (Previously Presented) The substrate processing apparatus according to claim 1, wherein said outer gas discharge port is so formed on said atmosphere blocking plate such that an arrival position of said gas discharged from said outer gas discharge port is in the vicinity of the center of said surface of said substrate held by said substrate holding/rotating element.

8. (Previously Presented) The substrate processing apparatus according to claim 7, wherein said single inner gas discharge port and said outer gas discharge port substantially simultaneously discharge said gas.

9. (Previously Presented) The substrate processing apparatus according to claim 8, wherein the flow rate of said gas discharged from said outer gas discharge port is larger than the flow rate of said gas discharged from said single inner gas discharge port.

10. (Previously Presented) The substrate processing apparatus according to claim 9, wherein said single inner gas discharge port and said outer gas discharge port are arranged inside a support cylinder supporting said atmosphere blocking plate in plan view.

11. - 18. (Canceled)

19. (Previously Presented) A substrate processing apparatus operable to supply a fluid to a rotated substrate, the substrate processing apparatus operable to perform prescribed processing and comprising:

a substrate holding/rotating element configured and operable to hold and to rotate said substrate; and

an atmosphere blocking plate configured to be substantially the same in planar shape and size as said substrate holding/rotating element, being rotatably driven and being arranged oppositely and proximately to at least one entire major surface of said substrate when said substrate is held by said substrate holding/rotating element, and formed with a processing solution discharge port and a single inner gas discharge port operable to discharge a processing solution and gas to said surface of said substrate respectively,

a support cylinder supporting said atmosphere blocking plate to be rotatable; and

an inner shaft inserted into a hollow portion of said support cylinder;

said processing solution discharge port and said single inner gas discharge port arranged on said inner shaft in plan view, said single inner gas discharge port arranged eccentrically to a center of said substrate held by said substrate holding/rotating element; and

an outer gas discharge port operable to discharge gas to said surface of said substrate held by said substrate holding/rotating element, the outer gas discharge port formed on said atmosphere blocking plate and interposed between an outer peripheral surface of said inner shaft and an inner peripheral surface of said support cylinder in plan view so as to continuously and annularly enclose said single inner gas discharge port.

20. (Canceled)

21. (Previously Presented) The substrate processing apparatus according to claim 1, wherein said outer gas discharge port is so formed on said atmosphere blocking plate such that an arrival position of said gas discharged from said outer gas discharge

port is closer to the center of said surface of said substrate held by said substrate holding/rotating element than an intermediate portion between the center and the outer peripheral edge of said surface.

22. (Previously Presented) A substrate processing apparatus operable to supply a fluid to a rotated substrate, the substrate processing apparatus operable to perform prescribed processing and comprising:

a substrate holding/rotating element configured and operable to hold and to rotate said substrate; and

an atmosphere blocking plate configured to be substantially the same in planar shape and size as said substrate holding/rotating element, arranged oppositely and proximately to at least one entire major surface of said substrate when said substrate is held by said substrate holding/rotating element, and formed with a processing solution discharge port and a single inner gas discharge port operable to discharge a processing solution and gas to said surface of said substrate respectively, wherein

said single inner gas discharge port is arranged eccentrically to a center of said substrate held by said substrate holding/rotating element, and

an outer gas discharge port is formed on said atmosphere blocking plate and is positioned outside said single inner gas discharge port so as to continuously and annularly enclose said single inner gas discharge port in plan view, said outer gas discharge port operable to discharge the gas to said surface of said substrate held by said substrate holding/rotating element.